

# Virginia Coastal Nonpoint Source Program

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- Where are we now?
- Where we are going?




# Building on Existing Programs

- Chesapeake Bay Program
- Chesapeake Bay Preservation Act
- Established Nonpoint Source Program
- Strong Coastal Zone Management Program

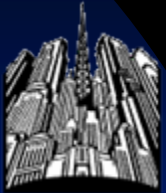
# NPS Program Enhancements

- Silvicultural Water Quality Law
- Agricultural Stewardship Act
- Septic Drainfield Regulations
- Clean Marina Program

# Agriculture Projects

-  4 projects completed (2 to meet irrigation water management condition)
-  Irrigation Management Workshops
-  Chemigation Demonstration & update to Farm and Home Water Quality Assessment Manual

# Urban Projects



14 projects completed (3 to meet program conditions)



Update Stafford County Stormwater Ordinance & Design Manual



Develop a Model Stormwater Ordinance & database



Shoreland Planning Protocol (2 years)



# Urban Projects (cont.)



Develop GIS for VDH Shellfish Sanitation

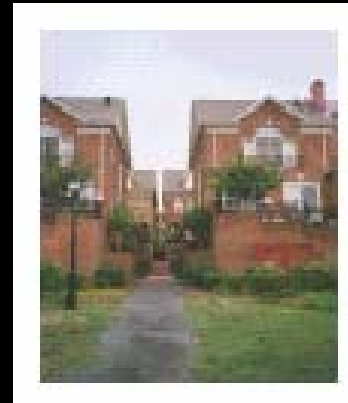


MPPDC Onsite Septic Program (2 years)



Local Government Projects (3 years – most recent through an RFP process)

# The Economic Benefits of Better Site Design In Virginia



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# Marina Projects

**Two projects were completed to meet program conditions**



**Virginia Clean Marina Program**

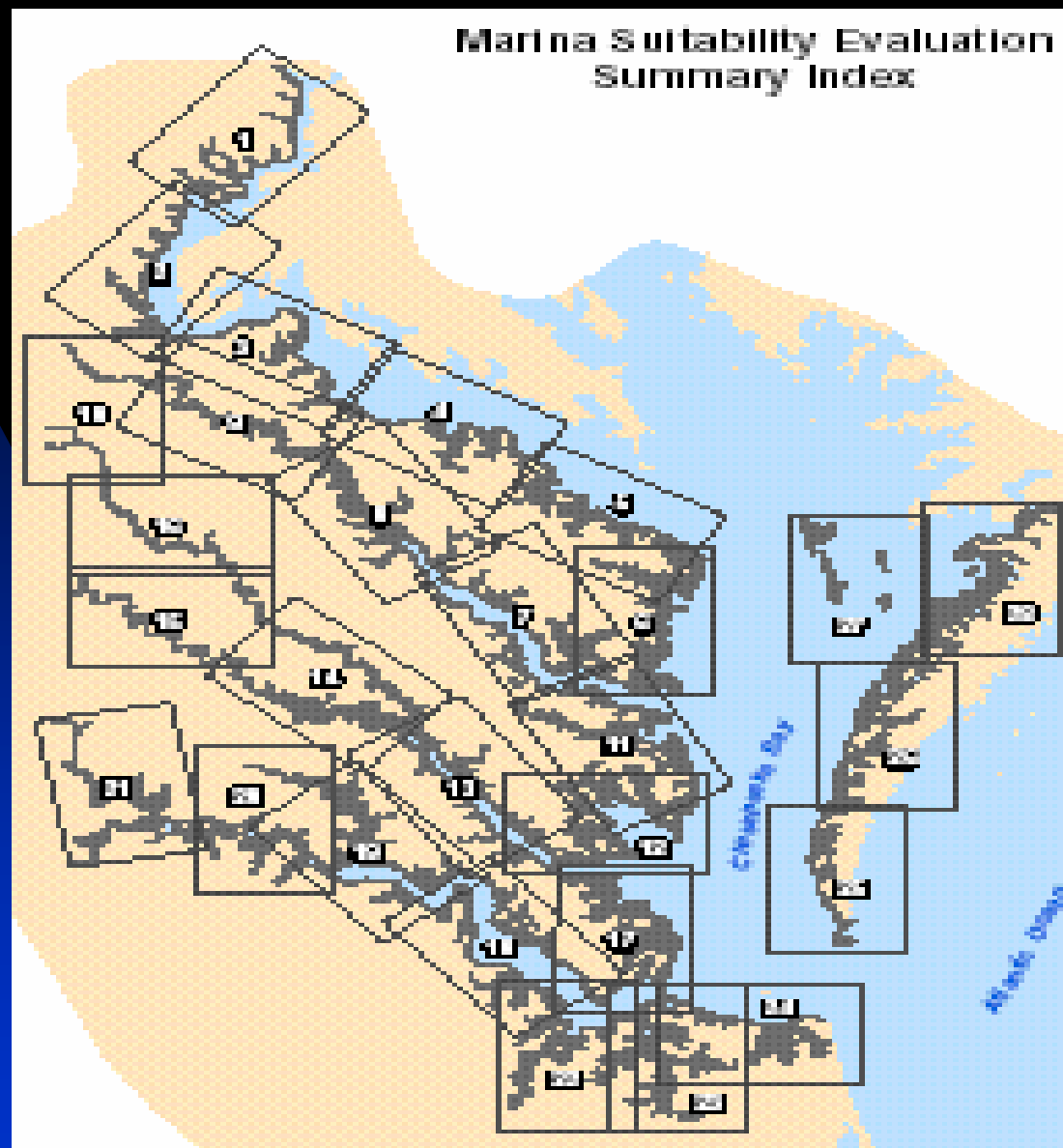


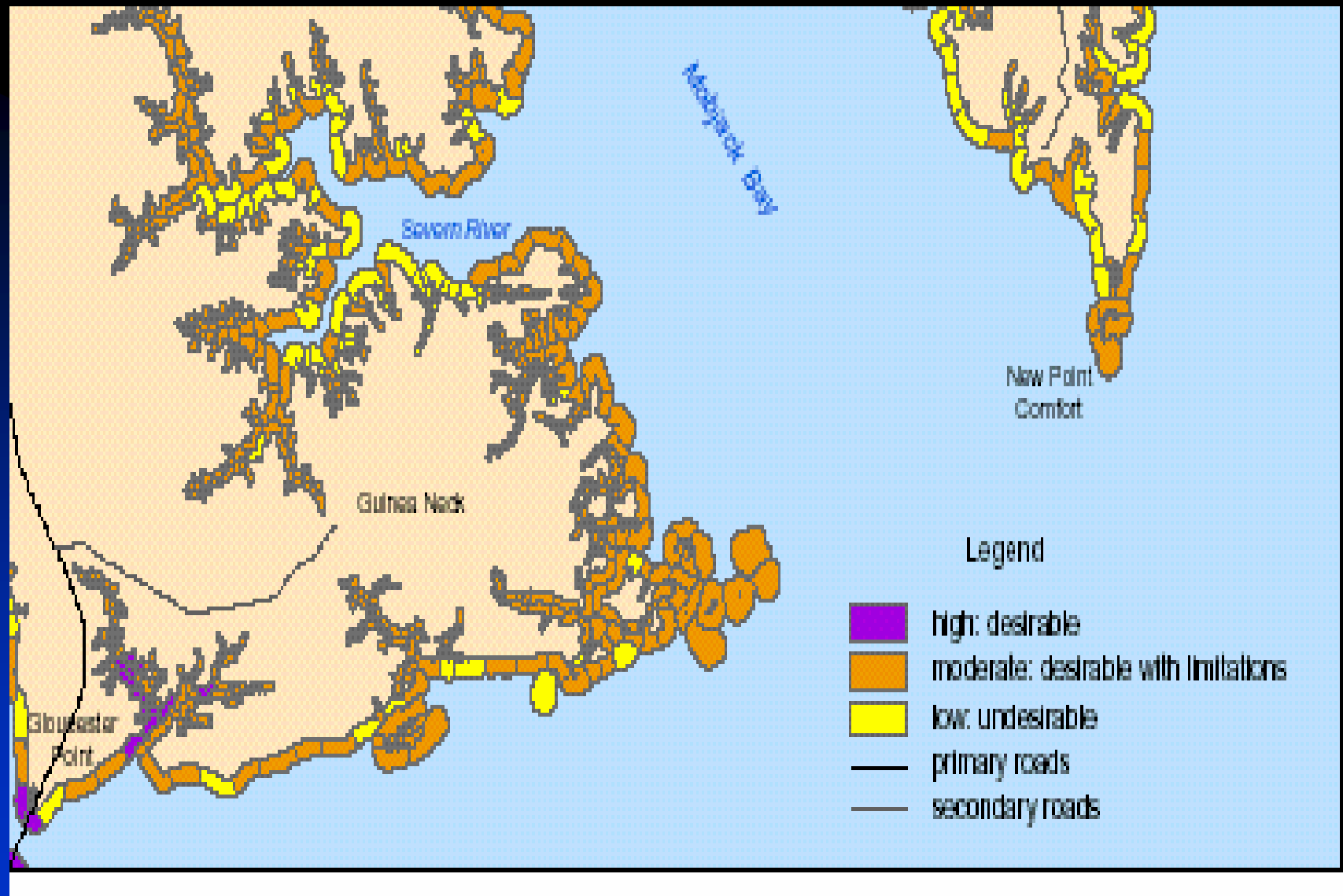
**Marina Siting Suitability Tool**



# The Virginia Clean Marina Guidebook







# Virginia Stream Restoration Design Manual

## Virginia Stream Restoration Design Manual

November 24

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Division of Soil and Water Conservation  
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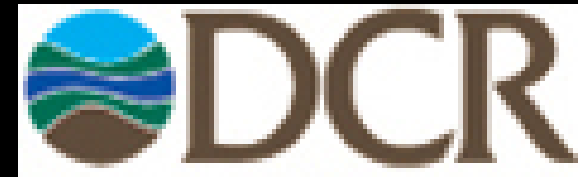
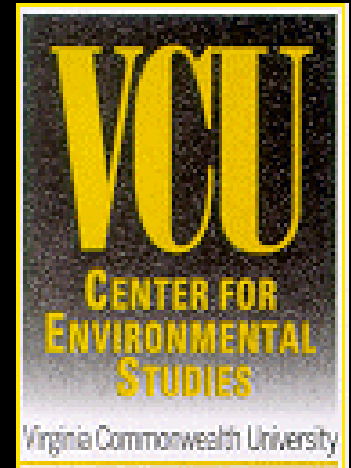
# What is Included In Manual

- **Chapter 1 – Introduction and Permits**
- **Chapter 2 – Design Guidelines**
- **Chapter 3 – Costs**
- **Chapter 4 - Practices and Graphics**
- **Appendices**

# How Are Practices Organized?

- **Bank Protection**
- **Bank Stabilization**
- **Grade Control Structures**
- **Flow Deflection/Concentration Structures**
- **Temporary Flow Diversion**

# Stream Research in Virginia's Coastal Zone

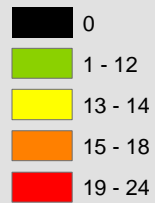


# Pilot Study to Develop Technical Standards and Procedures for Stream Reference Reach Establishment in Virginia's Coastal Zone

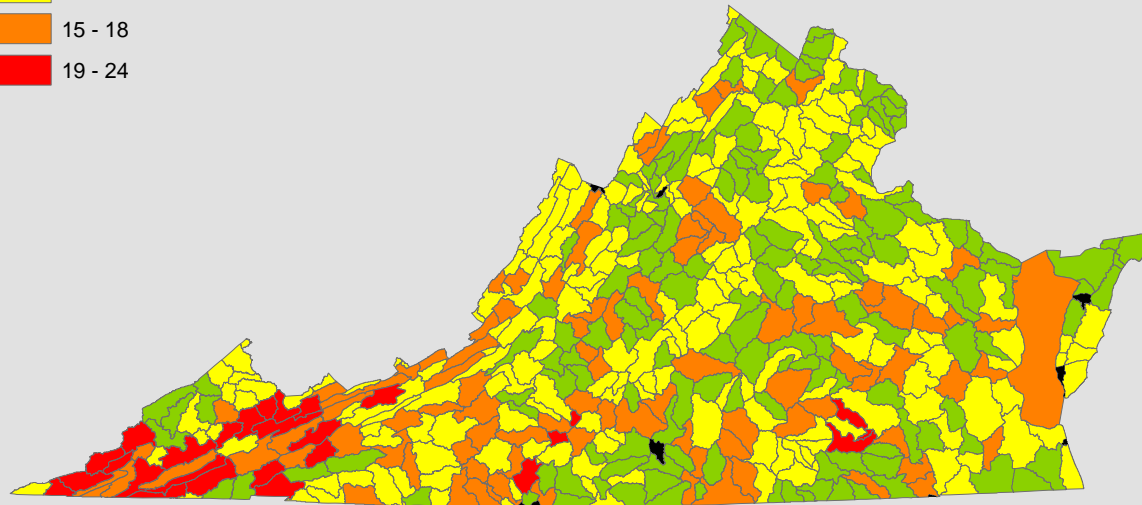




**Total mIBI Score**  
**Maximum Score = 30**



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100 0 100 200 300 Kilometers

# Model Reference Stream

## Development (Phase I)

### Data Collection

- **Sampled randomly-selected stream reaches**
- **Fish - Electrofishing and IBI protocol**
- **Macroinvertebrates - Modified RBP III protocol**
- **Stream Habitat - EPA Rapid habitat assessment**
- **Fluvial Geomorphology - Rosgen protocol**

# Phase II (2003-2004)

## CZ Stream Assessment

- VCU partnering with other state agencies to develop and implement an objective and quantitative survey of stream-dependent living resources in the CZ of Virginia
- revise and validate protocols as a tool for regional and statewide stream assessment
- refine *Virtual Stream* model for the Virginia CZ, using new data collected from approximately 175 coastal stream segments in 70 HUCs

# Phase III (2004-2006)

## CZ Stream Assessment

- Refinement of **INSTAR**, a user-friendly GIS-based database (**IN**teractive **ST**ream **A**ssessment **R**esource)
- Enhancement and expansion of stream assessment database
- Facilitate use of tool for targeting and assessing program efficacy

# Local Government Projects

## Currently Supported Activities

- |                                 |                      |
|---------------------------------|----------------------|
| ✓ Stormwater management         | ✓ Watershed planning |
| ✓ Septic system programs        | ✓ Ordinance updates  |
| ✓ Plan review & data collection | ✓ Coordination       |
| ✓ Stream assessments            | ✓ Outreach/Education |
| ✓ Tool development              | ✓ Capacity building  |

# Capitalize on Program Strengths

- Technology Based
- Proactive
- Equitable and Comprehensive
- Protects and Restores
- Enforceable Policies and Mechanisms

# Targeting Watershed Protection

- Utilize INSTAR stream assessment to identify high quality streams
- Establish program linkages to bring focus to water quality protection
- Provide technical support and leverage funding to support watershed planning

# Next Steps

- One of the few programs that has a water quality protection focus
- Limited funding, staffing, and program recognition is a major impediment
- By focusing on watershed planning and protection it brings focus to the program